

APPENDIX A

CALIFORNIA DESERT DISTRICT, BLM

August 1999

Documentation Form (PART I & II) for Rangeland Health Determination: Achievement of Rangeland Health Standards, Contributing Factors and Appropriate Action Priorities

PART I- Review

Indicate the date(s) or period the information covered: Field assessment conducted during the 1999 grazing season (December 1998, thru June, 1999). Monitoring filed reviewed back to 1989 when 10 year grazing lease was issued.

Participants

Names

Position

Tanya Egan
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Wildlife Biologist
Rangeland Management Specialist
Botanist
Range Assessment Tech.

Section 1-Identification of Area(s) and Related Information

1. **Site** (Specific Geographic Area) within Management Unit (allotment, pasture or area) -
Allotment name/number: Rattlesnake Canyon/08003

Allotment Description - The Rattlesnake Canyon Allotment is located approximately 50 mile SE of Barstow and 12 miles NW of Yucca Valley. The upper elevational portion of the allotment is situated in the Bighorn Mountain Range, south of Highway 247, and is connected to the lower elevational portion by Rattlesnake Canyon. The allotment is composed of varying topography ranging from arid alluvial fans at an elevation of 3,200 feet, to pinon pine woodlands at 6,000 feet. A total of 18 assessment transects were conducted from RS#1A thru RS#8B.

Legal location, UTM, Lat. and Long - UTM's will be supplied for each transect site when available. See Maps 1 through ? for transect locations.

Approximate size in acres (or linear length if lotic riparian) - 27,364 acres of public land, 2,765 acres of private land, of which 10 acres are controlled by the livestock producer, and 0 acres of state land.

2. **Management Unit** (allotment or pasture-list name/no./acres) -
There are three primary grazing units in the Rattlesnake Canyon Allotment. The upper elevational portion of the allotment located in the Bighorn Mountains is typically used in the summer and fall months through November and comprises approximately 45 percent of the allotment. The lower elevation portion of the allotment starting at the mouth of Rattlesnake Canyon is typically used in the winter and spring months and comprises approximately 50 percent of the allotment. Rattlesnake Canyon itself is the topographic link between the lower and upper grazing units in this allotment and comprises an important 5 percent of the allotment. There is always some level of grazing

occurring within the canyon. Grazing activity within the canyon is highest in the fall and spring when cattle are herded to either the lower or upper portions of the allotment.

3. **Landscape** (identify by groups of management units, or by watershed if cross-cutting MU's and list) - Eighteen sites were assessed for rangeland health. These 18 sites were mapped inside 8 polygons that represent a specific area with similar landscape features, vegetation, and use. RS#1A & 1C-Joshua Tree woodland, RS#1B & 3A- Joshua Tree/Blackbrush, RS#1D & 2A-Pinon Pine/Blackbrush, RS#2B & 3B-Pinon Pine/Oak, RS#2C-Mojave yucca/Blackbrush, RS#4A & 4B-RS Canyon Wash, RS#5A, 5B, 6A & 8B- Creosote Scrub., RS#7A-Mix Mojave Transitional, RS#7B & 8A-Mixed Mojave. See EA for description of community types.
4. **Period of Use** - This is a yearlong grazing allotment. The allotment is topographically separated by elevation and terrain. The lower elevational portion of the allotment is mojave desert and desert tortoise habitat. The upper portion of the allotment is located in the Bighorn Mountains. These use areas are connected by Rattlesnake Canyon. The desert portion of the allotment is used primarily in the winter and spring months. The upper portion is used in the summer and fall months.
5. **Kind and Class of Livestock:** - Cattle/Cow-Calf
6. **Other Stratification** (identify-e.g., all riparian areas in XXX Pasture) - The allotment is stratified into 8 upland polygons based on topography, know areas of livestock concentration, and accessibility. Most developed & undeveloped water sources were evaluated for PFC. Portions of the Bighorn Mountains Wilderness area overlap the allotment. A know population of parish's daisy (*Erigeron parishii*) near the USFS boundary.

Section 2-Identification of Information Reviewed

The following information (e.g. monitoring, literature, personal communication, etc.) was considered to determine attainment and, if applicable, contributing factor(s) for non-achievement and failure to make significant progress towards achievement of standards listed later in this section.

- A. Information relevant to fallback standard, **Soil Permeability:**
Upland soils exhibit infiltration and permeability rates that are appropriate to soil type, climate, and landform.

Soil Stability Indicators

Soils stability evaluated using SSF Form (7310-12) - RS#6A showed signs of moderate erosion but the primary causes are considered natural, however cattle grazing may have contributed to this rating. With the exception of active washes soils assessed at the transect sites are considered stable, with slight erosion detected at RS#8B also caused by natural processes.

Productivity Indicators

Biological

Litter and organic matter - As documented in the rangeland health assessments conducted from December, 1998 through June 1999 in the Rattlesnake Canyon Allotment; percentages of persistent and non-persistent litter is appropriate at each assessment site and contributes to the protection of the soils from accelerated erosion.

Cryptogam/microphyte - As documented in the rangeland health assessments conducted from December, 1998 through June 1999 in the Rattlesnake Canyon Allotment; the presence of cryptogams were noted at RS#1A, 1C, 1D, 2A, 2B, 2C, 3A, 3B, 4B & 8B. These cryptogams were

fragmented in RS#1A, 1C & 3A, and considered intact at RS#1D, 2A, 2B, 2C, 3B, 4B & 8B.

Plant vigor - Overall plant vigor was fair to good in most plant communities occur within the allotment. However, due to moderate to heavy utilization levels and the lack of periodic rest, poor plant vigor of key species was detected at RS#1A, 5A & 6A.

Recruitment - Overall species recruitment was considered to be at acceptable levels in most of the plant communities occurring within the allotment. However, due to moderate to heavy utilization levels and the lack of periodic rest, minimal recruitment was detected on key species at RS#1A, 5A & 6A.

Physical

Porosity - Infiltration rates (seconds/inch) & Penetrometer reading (lbs./sq.inch) available upon request. No indications of unnatural compaction due to livestock grazing except at water facilities.

Animal/insect burrowing - As documented in the rangeland health assessments conducted from December through June 1999 in the Rattlesnake Canyon Allotment, the presence or absence of small mammal, or desert tortoise burrows was documented. Low densities of small mammal burrows were detected at RS#1A, and low densities of desert tortoise and small mammal burrows were detected at RS# 5A & 6A.

Comments: Overall soil surfaces stable. No indicators of accelerated erosion or unnatural compaction caused by livestock grazing.

B. Information relevant to fallback standard, **Riparian/Wetland:**

Riparian-wetland areas are in properly functioning condition.

Biotic Indicators (reference and date of information source)

PFC - Riparian vegetation is limited to small springs and addits. The larger of these areas is approximately two acres and the smallest spring measures less than twenty feet by twenty feet area. The amount of water produced is limited, and could be generally characterized from a small flow about the diameter of a pencil to a trickle. During the past year the following eight springs were examined to see if they are meeting properly functioning condition for riparian resources. These comprise less than twenty acres of riparian habitat. One-Hole Spring was classified as non-functioning. Kynna Spring was classified as functioning-at-risk with a downward trend. Bighorn seeps 1 & 2 were classified as non-functioning. Dove Spring was considered non-functioning, however with the fencing of the lower pond, positive progress is being made towards the achievement of this standard. Vaughan Spring is currently classified as non-functioning, however livestock grazing is not the primary cause. Viscera Spring was classified as non-functioning. Lower Rattle Spring located within Rattlesnake Canyon is currently subject to excessive utilization and is estimated to be non-functioning, this estimation needs to be varified. Mound, Two-Hole and Rattlesnake Spring are marginally considered to be functioning. Their sources are adequately protected, however the exclosure fences encompass a very minimal amount of riparian habitat.

Comments: Prescriptions are currently being developed to enhance riparian values at all spring sites.

- C. Information relevant to fallback standard, **Stream Morphology**:
Stream channel morphology (including but not limited to gradient, width/depth ratio, channel roughness and sinuosity) and functions are appropriate for the climate and landform.

There are no streams located within this allotment.

- D. Information relevant to fallback standard, **Native Species**:
Healthy, productive and diverse populations of native species exist and are maintained.
Biotic Indicators (reference and date of information source):

Community diversity - Community diversity is based upon the number of species by life form and representation of life form diversity relative to the site potential. Deterioration is indicated when the number of life forms and/or number of species by life form declines relative to site potential. For example, most transect conducted within creosote scrub communities exhibited low diversity relative to site potential. RS#1A - Low, 1B - Low, 1C - Medium, 1D - Medium, 2A - Medium, 2B - Medium, 2C - Medium, 3A - Medium, 3B - Medium, 4A - Medium, 4B - Medium, 5A - Medium, 5B - Medium, 6A - Low, 7A - Medium, 7B - Medium, 8A - Medium, 8B - Low.

Community structure (layers) - Overall community structure in most of the plant communities within the allotment were fair to good. However, due to the lack of recruitment, periodic rest and moderate to heavy utilization levels, plant community structure was not appropriate for the site at RS#1A, 5A & 6A.

Exotic species (invaders) - As documented in the rangeland health assessment conducted between December, 1998 through June, 1999 levels of exotic species was noted. Unacceptable levels of schmius and/or red brome detected at RS#7A. It is unknown if continuous livestock grazing has contributed to this condition.

Species vigor (production, mortality, decadence, etc.) - As documented in the rangeland health assessment conducted between December, 1998 through June, 1999 the vigor of both shrubs and herbaceous species was documented at every assessment site. The unseasonable low spring precipitation, moderate to heavy utilization levels and lack of periodic rest resulted in poor vigor detected at RS#1A, 5A & 6A.

Diversity of age classes - As documented in the rangeland health assessment conducted between December, 1998 through June, 1999 the diversity of age classes for both shrubs and herbaceous species was documented at every assessment site. The unseasonable low spring precipitation, moderate to heavy utilization levels and lack of periodic rest resulted in poor age class distribution detected at RS#1A, 5A & 6A.

Recruitment - As documented in the rangeland health assessment conducted between December, 1998 through June, 1999 the rate of recruitment for both shrubs and herbaceous species was documented at every assessment site. The unseasonable low spring precipitation, moderate to heavy utilization levels and lack of periodic rest resulted in poor species recruitment detected at RS#1A, 5A & 6A.

Wildlife forms present (obligate) - As documented in the rangeland health assessment conducted between December, 1998 through June, 1999 habitat quality for wildlife was documented at every assessment site. The unseasonable low spring precipitation, moderate to heavy utilization levels and lack of periodic rest has resulted in poor wildlife habitat quality being detected at RS#1A, 5A & 6A.

Special status species - As documented in the rangeland health assessment conducted between December, 1998 through June, 1999 habitat quality for special status species was documented at every assessment site. Special status species include desert tortoise, raptors, bighorn sheep and perish's daisy. Habitat quality was determined to be not acceptable for desert tortoise at RS#5A & 6A.

Comment: Overall this standard is being achieved for this allotment, however the Native Species standard is currently not being met at RS#1A, 5A & 6A.

Section 3-Summary of Determinations and Rationale

Determination on Standards Achievement

Upon completion of this form, an examination of the information listed in Section 2 (above) and recent field visits (see PART II), if applicable, indicate the following with regard to standards achievement for the area identified in Section 1:

Standard	Determination on Standard Achievement (check appropriate box for each standard)
Soil Permeability	<u> X </u> Met/ <u> </u> Not Met but Progressing Towards/ <u> </u> Not Met and Not Progressing Towards/ <u> </u> N/A

Rationale supporting determination: Field assessments (see soils data sheets) conducted between December, 1998 and June, 1999.

Standard	Determination on Standard Achievement (check appropriate box for each standard)	
Riparian/Wetland	<u> </u> Met/ <u> XX </u> Not Met but Progressing Towards/ <u> </u> Not Met and No Progressing Towards/ <u> </u> N/A	
Magnitude:	Acres/Miles Not Met <u> <20 acres </u>	Percent of Allotment/Area Not Met <u> <1% </u>
Are livestock a significant factor? (circle one): <u> XX </u> YES <u> </u> NO <u> </u> N/A		

Rationale supporting determination: There are seven riparian areas, both developed and undeveloped where heavy to severe utilization levels at the sources, and other PFC related factors have classified these areas as not meeting this standard. Strategies have been developed to enhance riparian values at each of the springs. The implementation of these strategies will occur two springs at a time over the next 4 years. If additional funding becomes available, every attempt will be made to shorten the 4 years estimated of riparian improvement strategy implementation. Riparian enhancement strategies have been implemented at Dove Spring. See recommendations in Section 5.

Standard Determination on Standard Achievement (check appropriate box for each standard)
Stream Morphology _____ Met/_____ Not Met but Progressing Towards/_____ Not Met and
Not Progressing Towards/ X N/A
Magnitude: Acres/Miles Not Met _____ Percent of Allotment/Area Not Met _____

Are livestock a significant factor? (circle one): _____ YES _____ NO X N/A
Rationale supporting determination: No streams are located on this allotment.

Standard Determination on Standard Achievement (check appropriate box for each standard)
Native Species _____ Met/_____ Not Met but Progressing Towards/ XX Not
Met and Not Progressing Towards/ _____ N/A
Magnitude: Acres Not Met Approx. 4,000 acres Percent of Allotment/Area Not Met 15%

Are livestock a significant factor?: X YES _____ NO
Rationale supporting determination: The field assessments and monitoring file review conducted for the Rattlesnake Canyon Allotment from December, 1998 through June, 1999 revealed excessive utilization during the critical growing periods and the lack of periodic rest have degraded the plant communities. Desert tortoise and Bighorn sheep habitat quality within polygons RS#1A, 5A & 6A has also been negatively impacted. Recommendation have been formulated that would result in positive progress towards achieving the Native Species Standard. See recommendations in Section 5.

Section 4-For Those Standards Not Achieved, Summary of Contributing Factor(s) for Determination and Supporting Rationale X Applicable _____ Not Applicable

Standards not achieved from Section 3: Riparian/Wetland & Native Species.

Major Uses Rationale and Information. Referenced (list data reviewed, type and information date)
Domestic Livestock Grazing:

Utilization records - Reflect localized moderate to heavy utilization levels at RS#1A & 5A.

Field notes/photographs - See rangeland health assessment forms by transect.

Exotic plant presence - Unacceptable levels of red brome detected at RS#7A.

Abnormal weather events - Very dry late winter/spring in 1996, 1997 & 1999 have resulted in a very poor ephemeral crop, and has negatively impacted the vigor of perennial plant communities within the allotment.

Section 5-BLM Staff Who Reviewed Available Information and Their Recommendations for Development and Implementation of Appropriate Action to Make Significant Progress Toward Achieving the Standard(s) X Applicable _____ Not Applicable

Names
Remijio Chavez
Tanya Egan
Jessica Walker

Position
Rangeland Mgmt. Spec.
Natural Resource Spec.
Botanist

In cases where the standards are not achieved and after considering all relevant information, we recommend the priority for developing and implementing appropriate action to achieve standards in Section 2:

Recommended Prescribed Action -

Upland habitat not meeting standards: Rattlesnake Cyn. polygons 1, 5 & 6 have been identified as not achieving the Native Species standard and not conforming with national guidelines iii, vi, vii, viii, xi and xii (see 43 CFR 4180.2). Recommendations for polygon 1 include, but are not limited to the following management actions: Defer any grazing use in polygon 1 until June 15th, or until after seed dissemination on key species has occurred as determined by BLM. Recommendations for polygon 5 include, but are not limited to the following management actions: Provide for complete rest from any grazing use one year out of three. In those years where grazing use is allowed, grazing use would not be permitted between March 15th through June 15th, to allow for seed dissemination of key species. This management action would be in concert with similar management actions recommended for polygon 6. When livestock are permitted to use polygon 5, polygon 6 would be rested, and when grazing use is permitted in polygon 6, polygon 5 would be rested, both polygons are subject to deferment between March 15th through June 15th.

Recommendation for polygon 6 include, but are not limited to the following management actions: Implement the same management actions described for polygon 5. The displaced livestock from polygons 1, 5 & 6 would have to be re-located to other portions of the allotment or removed from the allotment and placed on private land. The lessee will be receiving a new grazing decision containing any new terms and conditions cited in the Decision Record prior to March 1, 2000.

Riparian habitat not meeting standards: The following riparian/wetland habitat has been identified as not achieving the Riparian/Wetland standard and not conforming with national guidelines iii, xiii and xiv (see 43 CFR 4180.2): One-Hole Spring, Kynna Spring, Bighorn Seeps 1 & 2, Vaughan Spring, Viscera Spring, Dove Spring and Lower Rattle Spring. Implement the necessary modifications to the above mentioned spring that would result in positive progress towards the achievement of the Riparian/Wetland standard. These modification could include fencing off all or portions of the riparian habitat, re-routing pipeline systems, re-locating and/or adding additional troughs, and the placing of shut-off devices (floats) within the water delivery system. Any modification to a developed spring would be in full cooperation with the lessee and interested publics. Strategies to enhance riparian values would be developed on a site-specific bases, in the following order of priority: One-Hole Spring, Kynna Spring, Bighorn Seeps 1 & 2, Vaughan Spring, Viscera Spring, Dove Spring and Lower Rattle Spring (need to confirm priority with BRAT and Tom). The placing of salt and/or mineral blocks on public land is currently prohibited when adjacent to undeveloped riparian/wetland habitat. At developed springs, ramps or floats will be placed in every trough to allow for maximum access to water by wildlife. In cooperation with the lessee, continue to strategies on how to divert water from the upper pond to another location and fence off the upper pond.

A range of alternatives for each management action will be included in the EA for this allotment.

Estimated Cost of Action:

Item(s): Up to \$10,000 over the next 4 years to pay for fencing materials, pipe, troughs etc., for riparian enhancement work at One-Hole Spring, Kynna Spring, Bighorn Seeps 1 & 2, Vaughan Spring, Viscera Spring, Dove Spring and Lower Rattle Spring.

Labor: Most of the riparian related labor would be volunteer labor. The seasonal closures and deferment recommended would require increase field patrols and monitoring. Funding must be made available to pay for horse use by our volunteer range rider.

Performance Period for Action: Implement deferred grazing use in polygon 1 beginning on March 15th, 2000. Implement complete rest for polygon 6 beginning March 15th, 2000. Implement riparian enhancement strategies for One-Hole Spring, Kynna Spring and Bighorn Seeps prior to May, 2000. The implementation of these management actions would only apply if selected in the Decision Record.

Biological/Physical

Severity of resource impacts resulting from non-achievement of the standard- X high
medium low

Size and area of affected resources: Approximately 4,000 acres in Rattlesnake Cyn. polygons 1, 5 & 6.

Probability to arrest further degradation: high X medium low unknown

Administrative

Proportion of federal land in the allotment: X high medium low

Pending administrative actions (lease renewal or transfer): X pending not pending until

Social

Anticipated cooperation of the permittee/lessee: expected X not expected

Legal requirements: X compelling not compelling

Other : It is anticipated that the lessee will appeal some or all of the recommended management actions if they are selected in the Decision Record.

Economic Considerations

Not a major factor.

Section 6-Documentation of Involvement by Permittees/Lessees, State Agencies and the Interested Public to Determine Conformance With Standards and to Determine Contributing Factors

Indicate the occurrence of public participation (e.g., permittee, interested public, other Federal or State/local agencies), or opportunities for public participation to review achievement of standards and contributing factors (who, when, and conversation or meeting summary): Ileen Anderson, California Native Plant Society (CNPS) and Tom Thompson, have participated in field assessment activities. William Mitchell, the lessee, Daniel Patterson, Southwest Center for Biological Diversity (SWCBD) and Ileen Anderson, CNPS have been keep apprised of progress being made on completion of the field assessment process.

Section 7-Authorized Officer's Determination and Priority for Appropriate Action and Implementation

I have reviewed the recommended determination and supporting rationale regarding the achievement or lack thereof to attain rangeland health standards. *In this case, the standard(s) have not been achieved. I have determined the priority for developing and implementing the recommended prescribed action (unless modified under "COMMENTS" listed below) to achieve the standards for the area identified in Section 3 (check one).*

Staff are directed to implement prescribed actions in accordance with this priority. This assessment and determination will be reviewed by a team on or before January, 2002 to ascertain the adequacy of current direction to attain standards.



FIELD OFFICE MANAGER

9-22-99

DATE

COMMENTS

*Develop a full range of alternatives
prescriptions which will achieve meeting
standards on this allotment.*